4-1950

EC159 Revised 1950 Crabgrass Control in Lawns

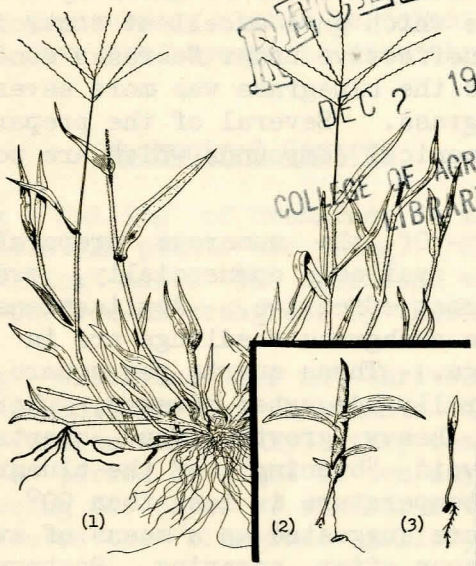
J. D. Furrer

Neal E. Shafer

REVISED
April
1950

E.C.
159-50

CRABGRASS CONTROL IN LAWNS



Crabgrass, Digitaria sanguinalis (L)
(1) Mature plant, (2) and (3) Seedlings

Crabgrass, also commonly known as water grass, finger grass, and crowfoot grass, is Nebraska's worst lawn pest. The plant normally has a low spreading habit of growth. Roots are usually produced where each node (joint) touches the ground. The leaves and leaf sheaths are hairy. The seed stalk is branched into three or more finger-like projections. It seldom starts growing before the middle of May and is generally killed by the first frost.

CO ND HOME ECONOMICS.
UN IE, AND THE UNITED
ST TING, W. V. LAMBERT,
DI

CRABGRASS CONTROL IN LAWNS

J. D. Furrer, Assistant Extension Agronomist
and Neal E. Shafer, Assistant in Agronomy

Chemical Control

Practically all of the commercial chemicals now available for crabgrass control, and many experimental materials, have been tested during the past three years. None has proved to be entirely satisfactory. Some materials which gave excellent control in eastern states were ineffective under Nebraska conditions. In many instances the bluegrass was more severely damaged than the crabgrass. Several of the preparations were mercury or arsenical compounds which are poisonous to animals.

Kerosene - Of the numerous preparations tested and which are available commercially, ordinary kerosene is the most effective. Applications should be made when the crabgrass seedlings are in the two- to four-leaf stage. Three quarts per square rod ($16\frac{1}{2}$' x $16\frac{1}{2}$') is generally adequate; however, where there is exceptionally heavy growth, four quarts should be used. To avoid "burning" of the bluegrass, spray when the air temperature is less than 90° F. Evening applications are suggested as a means of avoiding high temperatures soon after spraying. Postpone watering for about 48 hours after treatment. Watch the lawn closely during the next three or four weeks, and when new crabgrass seedlings appear, repeat the kerosene treatment. An ordinary two- to three-gallon pressure sprayer (knapsack sprayer) is one of the best means of applying the kerosene.

Sodium Chlorate - Eradication of crabgrass has been accomplished by spraying the infestations with a weak solution of sodium chlorate once each week for six weeks. The solution is made by adding two ounces (four tablespoons) of sodium chlorate to each three gallons of water. Apply at the rate of three gallons per square rod. Start applications when the seedlings are in the two-leaf stage. Some temporary discoloration of the lawn can be expected from these treatments. Watering of the lawn after treatment

should be delayed for a few hours in order to give the chemical time to act upon the crabgrass. Occasionally, some damage to the lawn grasses occurs in addition to discoloration. Where damage is apparent, heavy watering is advisable.

Caution: All inflammable material such as clothing becomes subject to explosive combustion when impregnated with sodium chlorate. Fire danger may be reduced by substituting atlacide for sodium chlorate, but the same precautions should be taken. If atlacide is used, add five tablespoons to each three gallons of water.

Mechanical Control

Pulling - Pulling of crabgrass is most effective when done while the plants are young. Heavy watering prior to pulling makes the operation easier. Many lawns are kept free of crabgrass by this method.

Shading - Crabgrass does not thrive in the shade. It has been found that when the plants are relatively young (mid-June to early July) they can be killed by shading for a period of eight to ten days. This may be done by using tar paper or similar material. This treatment leaves the bluegrass yellow, but it will soon recover.

Lawn Management for Crabgrass Control

Weeds rarely infest or take a lawn until after the lawn grass has been weakened by improper care. The chief causes of trouble from weeds in lawns are (1) close mowing, (2) low soil fertility, and (3) improper watering.

Mowing - Probably more lawns are destroyed in Nebraska by frequent close clipping than any other cause. The food which supplies the energy for growth and certain vital processes in the roots as well as in other parts of the plant is manufactured in the leaves. Constant removal of the lawn grass by frequent close clipping removes the source of energy

and reduces the vitality of the plants. Experiments have shown that the root system and underground stems of bluegrass cut three inches high are about three times as extensive as those of grass cut only one inch high.

Bluegrass should not be mowed closer than two inches. Mowing at $2\frac{1}{2}$ inches to three inches is more desirable from the standpoint of grass vigor. During cool weather clip often enough so no more than one inch is removed per clipping. In hot, dry weather little or no cutting should be done even though the grass attains a height of three or four inches.

Watering - Established stands of bluegrass should not be watered by daily light sprinkling. The moist surface soil and humid air which result from daily watering encourage crabgrass, foxtail, and many other weeds, and in addition furnish favorable conditions for the development of many lawn diseases.

From early spring until June 15 and from September 1 to late fall, the lawn should be thoroughly soaked. Two or three inches of water per week is not too much. This encourages the bluegrass to root more deeply and is especially beneficial to the trees and shrubs. During hot weather, watering should be done in the evening at intervals of a week or two to keep the subsoil moist and the surface soil moderately dry, thereby making conditions unfavorable for weedy grasses.

Fertilization - The value of fertilizer for weed control in lawns is due mainly to the increase in growth of the grass, which enables it to compete more successfully with weeds. Experiments have shown that the infestation of crabgrass in lawns can be reduced by the application of a nitrogenous fertilizer each spring and fall. Fertilization during hot weather is likely to stimulate the crabgrass and may injure desirable grasses. The primary object is to stimulate the desirable grasses at a time when the crabgrass is not in condition to be benefited. The shade provided by vigorous, healthy lawn grasses produces undesirable growth conditions for crabgrass.